

## SURVEY PURPOSE

An important component of the Clark County Regional Flood Control District's Public Information Program is evaluation. In October 1999 the District conducted its first flood awareness study to measure citizen awareness of the dangers of flash flooding in Clark County. The survey has been replicated during the month of October every year since 1999.

The 2006 survey was administered to 790 randomly selected residents of Clark County by UNLV's Cannon Survey Center. The margin of error for the study is + / - 3.49%. The core of the study remained the same and longitudinal comparisons have been conducted. Ten percent of the surveys were conducted in Spanish. There were some additional topical areas added this year (urban runoff drains into Lake Mead and a more in depth evaluation of behavior changes and willingness to change a behavior as a result of knowing this. The survey collected data on the following topics:

- Awareness of flash flooding in the Las Vegas Valley.
- General knowledge of various subjects related to flash flooding.
- Sources of flash flooding education and information.
- Behavior and tendencies when encountering a flooded street or road in the Las Vegas Valley
- Knowledge of availability and other flood insurance issues
- Demographic profile of respondents who have watched The Flood Channel
- Knowledge of urban runoff and assessment of behavior changes.
- Opinion of how well flood control is being handled in the Las Vegas Valley.



## CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

# 2006 FLOOD AWARENESS SURVEY SUMMARY SHEET

## CHARACTERISTICS OF THE SAMPLE

As in previous administrations of the survey, five demographic variables were used to create the sub-sets for data analysis. They are "area of Clark County respondent resides in," "length of time in Clark County," "age," "level of education" and "gender." According to the Nevada State Demographer the total population of Clark County is in excess of 1.8 million.

### LENGTH OF TIME LIVING IN CLARK COUNTY

- 3% Less than 6 months
- 4% 6 months to less than 1 year
- 10% 1 year to less than 3 years
- 15% 3 years to less than 6 years
- 17% 6 years to less than 10 years
- 51% More than 10 years

### AGE OF RESPONDENT

- 7% 18 – 24 years old
- 31% 25 – 44 years old
- 36% 45 – 64 years old
- 26% 65+ years old

### GENDER

- 48% Male
- 52% Female

### EDUCATION

- 8% Less than high school
- 30% High school graduate
- 17% Some college no degree
- 15% Two year college degree
- 17% Four year college degree
- 3% Some post graduate work
- 10% Graduate/professional degree

## KNOWLEDGE OF VARIOUS SUBJECTS RELATING TO FLASH FLOODING

Flood Related Issue	% Agree	
	2006	2005
I know about the dangers of flash flooding	95%	95%
I know about the time of year flash flooding is most likely to occur in the area	81%	81%
I know about safety precautions relating to flash flooding	87%	83%
I know about the resources available to learn more about flash flooding	56%	56%
I know ways in which flooding is being controlled in the area	73%	69%
I know about the availability of flood insurance	74%	75%

**FUTURE STEPS**

- One constant has been the significant importance of television in conveying flood safety information. Rain in the desert brings strong news coverage. Continued outreach and education efforts using the news medium are warranted and based on survey trends since 1999.
- The data continues to indicate that there is a high level of awareness (when combining unaided and aided results) among residents of Clark County regarding the dangers of flash flooding; overall, 94% of respondents were aware that flash flooding can occur in Clark County. Moreover, 2006 data shows that 98% of respondents who have lived in Clark County longer than 10 years are aware of the dangers. The data suggests that District’s educational message regarding flash flooding does increase awareness; this is substantiated by the high percentage of respondents who are aware of flash flooding.
- The Hispanic population in the Las Vegas Valley grows twice as fast as the total population and is expected to be nearly 600,000 by the year 2010.<sup>1</sup> This will represent 28% of the population of Clark County. With such rapid growth of this segment of the population it is important to continue providing public information to the Hispanic population. In doing so the Hispanic population is best reached via television. The survey shows that 89% of the respondents that we spoke to learned about flash flooding from television.

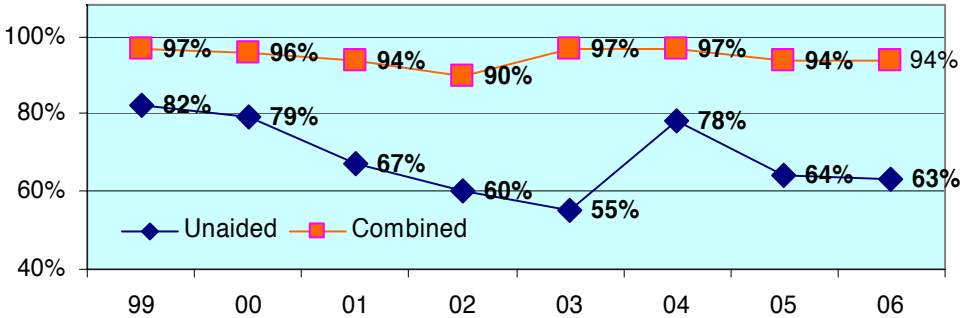
<sup>1</sup> Source: Nevada State Demographer

**CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT**

**AWARENESS OF FLOODING IN CLARK COUNTY**

When looking at the total number of respondents in both the unaided/unprompted (“What types of weather related natural dangers are you aware of that occur in Clark County?”), and prompted/aided questions (“Are you aware that flash flooding can occur here in Clark County?”), 94% of the sample was aware of flooding as a weather related natural danger. The chart below displays the data collected from 1999 to 2005

FLOOD AWARENESS YEARLY COMPARISON 1999-2005 AMONG CLARK COUNTY RESIDENTS



**PROGRAM RECALL OF RESPONDENTS WHO HAVE WATCHED THE FLOOD CHANNEL**

According to Cox Communications, approximately 74% of the total households in the Las Vegas Valley have access to cable television. Seventy-four percent (74%) of respondents in the sample reported to have access to cable television. Of this number, 43% reported to have watched the Flood Channel. The chart below shows the items most frequently mentioned when asked, “What do you remember the most from watching the flood channel?”

Rank		% 2006
1	Dangers of flash flooding	40%
2	Safety precautions	29%
2	Unable to specify	29%
4	Ways floods are controlled	14%
5	Other	9%
6	Where to learn more about flooding	4%
7	Time of year flooding occurs	3%
8	Availability of flood insurance	2%

Other: includes such responses as “cars floating,” “rescues,” and “devastation.”

**FUTURE STEPS**

- The Flood Channel should continue to include information and education about flash flooding, awareness of when the flood season is, flood insurance issues, and precautions to take when encountering a flooded street or road. In addition, the data shows that emphasis should be placed on “where to learn more about flooding.” The data collected on stormwater and urban runoff indicates that emphasis should also be put on ways that individuals can help protect the environment and Lake Mead. Ninety percent (90%) of those who have not already made a behavior change to help improve water quality would do so if they knew what to do. Younger respondents (18 – 24) and females (92%) were the most likely to indicate that they would make a behavior change to improve water quality.
- When looking at the knowledge of flood insurance that the respondents have, considerable confusion on the topic remains. This was the one topical area of the survey where there was not an increase in awareness. Continued emphasis should be placed in this area.
- Clark County continues to be among the fastest growing areas in the United States. Issues related to population growth should continue to be given consideration when planning ongoing public education. Awareness levels in excess of 90% are extremely difficult to achieve in marketing brand awareness, and the District has achieved such. The efforts and programs in place should continue with some modifications aimed at Spanish speaking residents. Emphasis should also be put on reaching the newcomers to the area and residents between the ages of 18 and 24.

**CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT**

**BEHAVIOR WHEN ENCOUNTERING A FLOODED STREET**

Of those respondents who had encountered a flooded street in Clark County 68% made a good or appropriate choice; they either “turned back and took an alternate route” or “waited for the water to go down and then drove through it.” This percentage is similar to the 67% who made an appropriate choice in 2005.



**SOURCES OF FLASH FLOODING EDUCATION AND INFORMATION**

Survey respondents were asked to answer “yes” or “no” to a list that was read to them of possible sources for obtaining information about floods. The following table represents the responses in order. Television continues as the top source of information about flash flooding.

Rank	Source	% 2006	% 2005	% 2004
1	Television	87%	87%	93%
2	Newspaper	60%	58%	64%
3	Friends / Relatives	59%	48%	52%
4	Radio	56%	47%	57%
5	Billboards	46%	39%	53%
6	Brochure	24%	26%	26%
7	CCRFCD Website	19%	5%	13%
8	Welcome Home Magazine	8%	5%	5%

**KNOWLEDGE OF ISSUES REGARDING FLOOD INSURANCE**

All respondents were asked a series of questions on issues regarding flood insurance. The table below shows the percentage of respondents who answered the question correctly.

Issue	% Correct
Flood insurance is available to everyone	60%
Flood insurance will only cover structural damage	26%
Flood insurance is only available to those living in a flood zone	53%
Flood insurance is only available to cover damage to the contents of a residence	58%
Flood insurance costs the same regardless of whether or not the residence is in a flood zone	52%
Where to learn more about flooding	39%

## AREA OF CLARK COUNTY RESPONDENTS RESIDE IN

- Southeast – 35%
- Northeast – 17%
- Southwest – 15%
- Northwest – 29%
- Outlying – 2%

Includes Mesquite, Boulder City and Logandale.



## CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT

### KNOWLEDGE OF STORMWATER AND URBAN RUNOFF

As a new data point this year, all respondents were asked whether they think that “All” or “Some” of the urban runoff that travels through the flood control system drains into Lake Mead? Thirty-eight percent (38%) of respondents correctly responded “all,” 40% thought that “some” of the urban runoff that travels through the flood control system drains into Lake Mead, and 22% did not know how to respond to the question. Respondents were also asked whether they thought that “the urban runoff and rainwater that travels through the flood control system is “treated” or “untreated.” Forty-four percent (44%) correctly answered the question and they were asked if they had made a behavior change as a result of having this knowledge. Fifty-five percent (55%) said that they had, an increase of 34 percentage points over last year. The following table shows the behavior change in order.

Rank	Behavior Change	Percent 2006	Percent 2005
1	Proper disposal of general waste	46%	19%
2	Proper disposal of chemicals	41%	38%
3	Use a commercial carwash	24%	10%
4	Proper disposal of oil	33%	10%
5	Proper clean/up disposal of pet waste	22%	3%
6	Use of organic fertilizers	19%	3%
7	Other	16%	29%

Overall 61% of respondents rated the way that flood control is being controlled in Southern Nevada positively. This is up 4 percentage points from the 57% who rated flood control overall positive last year. Overall rating by length of time in the area is shown below.

